

New Combinations in Japanese *Schoenoplectus* (Cyperaceae)

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New combinations for the Japanese taxa of *Schoenoplectus* (Rchb.) Palla (Cyperaceae) are proposed; i.e., *Schoenoplectus orthorhizomatus* (Arai & Miyam.) Hayasaka & H.Ohashi, *Sch. ×igaensis* (T.Koyama) Hayasaka & H.Ohashi, *Sch. ×oguraensis* (T.Koyama) Hayasaka & H.Ohashi, *Sch. ×trapezoideus* (Koidz.) Hayasaka & H.Ohashi and *Sch. ×uzenensis* (T.Koyama) Hayasaka & H.Ohashi.

Key words: Cyperaceae, new combinations, *Schoenoplectus*, *Scirpus*

Schoenoplectus (Rchb.) Palla, one of the segregated genera from *Scirpus* L. s. l., has recently been accepted as a distinct genus comprising of about 50 species widely distributed in the world. The genus is characterized by nodeless culms and pseudolateral inflorescence, and considered to be closely related to *Bolboschoenus* (Asch.) Palla and monotypic *Actinoscirpus* (Ohwi) R.W. Haines & Lye (both *Scirpus* segregates) on the basis of embryo morphology (Van der Veken 1965) and *rbcL* phylogeny (Muasya et al. 1998). The genus is sometimes broadly defined to include *Bolboschoenus* (Strong 1994) or *Actinoscirpus* (Koyama 1978), but a narrower circumscription of *Schoenoplectus* is employed here as in Goetghebeur (1998) and Simpson and Koyama (1998) excluding above two genera. These three genera and *Scirpus* s. s. are simply distinguished from each other as in the following key:

1. Culms noded
 2. Glumes pubescent outside
.....*Bolboschoenus*
 2. Glumes glabrous*Scirpus* s. s.
1. Culms nodeless

2. Inflorescence terminal
.....*Actinoscirpus*
2. Inflorescence pseudolateral
.....*Schoenoplectus*

Eleven species of *Schoenoplectus* are so far known from Japan, 10 of which have been transferred to the genus from *Scirpus* s.l. by Palla (1888a, b), Soják (1972a, b) and Koyama (1978). New combinations are proposed here for the remaining species and putative natural hybrids in need of constructing natural system of *Scirpus* s. l. in Japan.

***Schoenoplectus* (Rchb.) Palla** in Verh. K. K. Zool.-Bot. Ges. Wien **38** (Sitzungsber.): 49 (1888), nom. cons., & in Engl., Bot. Jahrb. **10**: 298 (1888), & in Allg. Bot. Zeitschr. **11**: 215 (1900); Soják in Čas. Nár. Muz. Odd. Přír. **140**: 127 (1972), **141**: 62 (1972), **148**: 194 (1980); Oteng-Yeb. in Notes Roy. Bot. Gard. Edinb. **33**: 314 (1974); T.Koyama in H.Hara & al., Enum. Fl. Pl. Nepal **1**: 118 (1978), excl. *Sch. grosso* (L.f.) Palla, & in Fl. Taiwan **5**: 207 (1978), & in Rev. Handb. Fl. Ceylon **5**: 153 (1985), & in W.L.Wagner, Bishop Mus. Occas. Pap.

29: 128 (1989); K.L.Wilson in *Telopea* **2:** 157 (1981); M.T.Strong in *Bartonia* **58:** 51 (1994), pro parte; C.D.Adams in *Fl. Mesoamer.* **6:** 449 (1994); Lye in *Fl. Somalia* **4:** 101 (1995), pro parte; Goetgh. in Kubitzki, *Fam. Gen. Vas. Pl.* **4:** 165 (1998); D.A.Simpson & T.Koyama in *Fl. Thail.* **6:** 275 (1998).

Scirpus L. sect. *Actaeogeton* Rchb. in *Fl. Germ. Excurs.* **1:** 78 (1830); Ohwi in *Mem. Coll. Sci. Kyoto Imp. Univ. ser. B*, **18:** 97 (1943); Beetle in *Am. J. Bot.* **29:** 653 (1942), **31:** 264 (1944), & in *N. Am. Fl.* **18:** 498 (1947); T.Koyama in *J. Fac. Sci. Univ. Tokyo, sect. 3*, **7:** 284 (1958); Tang & Wang in *Fl. Reip. Pop. Sin.* **6:** 20 (1961).

Scirpus L. sect. *Pterolepis* (Schrad.) Endl. in *Gen. Pl.*: 118 (1836); Ohwi in *Mem. Coll. Sci. Kyoto Imp. Univ. ser. B*, **18:** 98 (1943); Beetle in *Am. J. Bot.* **31:** 264 (1944), & in *N. Am. Fl.* **18:** 502 (1947); Tang & Wang in *Fl. Reip. Pop. Sin.* **6:** 17 (1961); T.Koyama in *Can. J. Bot.* **41:** 1109 (1963).

Scirpus L. subgen. *Schoenoplectus* Rchb. in *Icon. Fl. Germ. Helv.* **8:** 40 (1846), cf. ICBN; Ohwi in *Mem. Coll. Sci. Kyoto Imp. Univ. ser. B*, **18:** 97 (1943).

Scirpus L. sect. *Schoenoplectus* Rchb.: Beetle in *Am. J. Bot.* **30:** 395 (1943), **31:** 264 (1944), & in *N. Am. Fl.* **18:** 499 (1947); Tang & Wang in *Fl. Reip. Pop. Sin.* **6:** 17 (1961); Kern in *Fl. Males. ser. 1*, **7:** 508 (1974).

Schoenoplectus orthorhizomatus (Arai & Miyam.) Hayasaka & H.Ohashi, comb. nov.

Scirpus orthorhizomatus Arai & Miyam. in *J. Jpn. Bot.* **72:** 299 (1997).

Schoenoplectus ×igaensis (T.Koyama) Hayasaka & H.Ohashi, comb. nov.

Scirpus ×igaensis T.Koyama in *J. Fac. Sci. Univ. Tokyo, sect. 3*, **7:** 362 (1958), [as *Scirpus juncoides* Roxb. var. *hotarui* (Ohwi) Ohwi × *S. lineolatus* Franch. & Sav.].

Schoenoplectus ×oguraensis (T.Koyama) Hayasaka & H.Ohashi, comb. nov.

Scirpus ×oguraensis T.Koyama in *J. Fac. Sci. Univ. Tokyo, sect. 3*, **7:** 362 (1958), [as *Scirpus triangulatus* Roxb. × *S. wallichii* Nees].

Schoenoplectus ×oguraensis (T.Koyama) T.Koyama in *Kitam. & al., Col. Ill. Herb. Pl. Jap. rev. ed.*, **3:** 214 (1981), comb. invalid.

Schoenoplectus ×trapezoideus (Koidz.) Hayasaka & H.Ohashi, comb. nov.

Scirpus trapezoideus Koidz. in *Bot. Mag. Tokyo* **39:** 26 (1925), pro sp.; T.Koyama in *J. Fac. Sci. Univ. Tokyo, sect. 3*, **7:** 362 (1958), pro hybr., [as *Scirpus juncoides* Roxb. var. *ohwianus* T.Koyama × *S. triangulatus* Roxb.].

Scirpus erectus Poir. var. *triangulatus* Honda in *Bot. Mag. Tokyo* **45:** 45 (1931).

Scirpus hotarui Ohwi var. *triangulatus* (Honda) Nemoto in *Fl. Jap. Suppl.*: 1021 (1936).

Scirpus juncoides Roxb. var. *triangulatus* (Honda) Ohwi in *Mem. Coll. Sci. Kyoto Imp. Univ. ser. B*, **18:** 115 (1943).

Schoenoplectus juncoides (Roxb.) Palla subsp. *triangulatus* (Honda) Soják in *Čas. Nár. Muz. Odd. Přír.* **148:** 194 (1980).

Schoenoplectus ×trapezoideus (Koidz.) T.Koyama in *Kitam. & al., Col. Ill. Herb. Pl. Jap. rev. ed.*, **3:** 215 (1981), comb. invalid.

Schoenoplectus ×uzenensis (T.Koyama) Hayasaka & H.Ohashi, comb. nov.

Scirpus ×uzenensis Ohwi ex T.Koyama in *J. Fac. Sci. Univ. Tokyo, sect. 3*, **7:** 363 (1958), [as *Scirpus lineolatus* Franch. & Sav. × *S. triangulatus* Roxb.].

Schoenoplectus ×uzenensis (Ohwi ex T.Koyama) T.Koyama in *Kitam. & al., Col. Ill. Herb. Pl. Jap. rev. ed.*, **3:** 215 (1981), comb. invalid.

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- 早坂英介, 大橋広好: 日本産カヤツリグサ科フトイ属植物の新組み合わせ
カヤツリグサ科フトイ属 *Schoenoplectus* (Rchb.) Palla はアブラガヤ属 *Scirpus* L. として広くまとめられていた属を細分した分割属の1つで、稈に節がないこと、花序が偽側生であることが特徴である。本文中の属名に引用したように近年ではこの属の見解が採用されている。本論文では日本産フトイ属の1種4雑種に関する学名の組み替えを行った。すなわち、ミチノクホタルイ *Schoenoplectus orthorhizomatus* (Arai & Miyam.) Hayasaka & H. Ohashi, イガホタルイ *Sch. × igaensis* (T.Koyama) Hayasaka & H.Ohashi, オグライ *Sch. × oguraensis* (T.Koyama) Hayasaka & H.Ohashi, シカクホタルイ *Sch. × trapezoideus* (Koidz.) Hayasaka & H. Ohashi, アイノコカンガレイ *Sch. × uzenensis* (T.Koyama) Hayasaka & H.Ohashi である。
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